

## INTERNATIONAL SEARCH REPORT

ntional Application No  
PCT/IB2004/002177

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B23Q1/54 B23Q1/01

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B23Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/32256 A (LEHMANN FRITZ ; LIECHTI RALPH (CH); LIECHTI ENGINEERING AG (CH)) 1 July 1999 (1999-07-01) the whole document	1
A	FR 2 571 289 A (FOREST LINE SA) 11 April 1986 (1986-04-11) abstract	2-7
A	DE 197 43 149 A (CHIRON WERKE GMBH) 8 April 1999 (1999-04-08) figure 4	1-7
A	US 5 028 180 A (SHELDON PAUL C ET AL) 2 July 1991 (1991-07-02) column 5, line 64 – column 6, line 21; figures 1,6	1-7
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

2 November 2004

Date of mailing of the international search report

12/11/2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 779 126 A (CHIRON WERKE GMBH) 18 June 1997 (1997-06-18) the whole document -----	1-7

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/IB2004/002177

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9932256	A	01-07-1999	WO AU TW	9932256 A1 3909599 A 443955 B		01-07-1999 12-07-1999 01-07-2001
FR 2571289	A	11-04-1986	FR	2571289 A1		11-04-1986
DE 19743149	A	08-04-1999	DE WO	19743149 A1 9916576 A1		08-04-1999 08-04-1999
US 5028180	A	02-07-1991	AT AU AU BR CA DE DE EP HU JP JP KR RU WO US US US US	140648 T 655157 B2 6430090 A 9007632 A 2065260 A1 69027931 D1 69027931 T2 0489857 A1 61498 A2 5500337 T 3083841 B2 9506371 B1 2076020 C1 9103145 A1 5466085 A 5489168 A 4988244 A 5354158 A		15-08-1996 08-12-1994 08-04-1991 07-07-1992 02-03-1991 29-08-1996 27-02-1997 17-06-1992 28-01-1993 28-01-1993 04-09-2000 14-06-1995 27-03-1997 21-03-1991 14-11-1995 06-02-1996 29-01-1991 11-10-1994
EP 0779126	A	18-06-1997	DE DE EP ES	19546878 A1 59607822 D1 0779126 A1 2164819 T3		19-06-1997 08-11-2001 18-06-1997 01-03-2002